110. A method of fabricating a device comprising steps of: providing a substrate;

producing magnetic regions in or on the substrate, wherein the magnetic regions produce a plurality of magnetic fields when magnetized, and wherein the localized magnetic fields are sufficient to trap a magnetic particle with a trapping energy at least five times greater than the thermal energy of the particle at room temperature.

111. A method of fabricating a device comprising: providing a substrate;

producing magnetic regions in or on the substrate, wherein the magnetic regions produce a plurality of localized magnetic fields, and wherein the magnetic regions project above the surface of the substrate.

112. The method of claim 111, wherein the magnetic regions comprise a magnetic material, and wherein the magnetic regions are fabricated using photolithography.

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